ABSTRACT

Defects on the edge of copper interconnects for back end of the line semiconductor devices are alleviated by an interconnect that comprises an impure copper seed layer. The impure copper seed layer covers a barrier layer, which covers an insulating layer that has an opening. Electroplated copper fills the opening in the insulating layer. Through a chemical mechanical polish, the barrier layer, the impure an impure copper seed layer derived from an electroplated copper bath copper seed layer, and the electroplated copper are planarized to the insulating layer.